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| LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK 600 SOUTH AVENUE WEST WESTFIELD, NJ 07090 | | | HINZE, LEO T | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

T/H

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|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/584,677 | BOOSE ET AL. | |
| | Examiner | Art Unit | |
| | Leo T. Hinze | 2854 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 18 April 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 28-55 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 28-55 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 18 April 2007 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20060627</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

2. Claim 55 is objected to because of the following informalities: "said frame" in line 5 lacks the proper antecedent basis. To expedite prosecution, the examiner will interpret "frame" as being "doctor blade."

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 40-48, 51, and 54 are rejected under 35 U.S.C. 102(b) as being anticipated by Holdregger, US 4,940,354 A (hereafter Holdregger).

- a. Regarding claim 40, Holdregger teaches a doctor blade mounting system comprising a doctor blade clamping portion (1, Fig. 4) comprising a solid material and including a slit (2, Fig. 1) for receiving a doctor blade (squeegee 10, Fig. 4; "inking blade in a printing press," col. 1, ll. 45-46), and clamping means (3, 12, Fig. 1) for clamping said

doctor blade within said slit, said clamping means being resiliently ("clamping tube which is made of a pressure-type elastic material," col. 3, ll. 36-37; "spring strip 12," col. 3, ll. 61-62; both the elastic and spring are resilient) arranged to provide a damping motion for said doctor blade.

- b. Regarding claim 41, Holdregger teaches the doctor blade mounting system of claim 40 as discussed in the rejection of claim 40 above. Holdregger also teaches wherein said clamping means is tightly received within said slit (clamping means 3 and 12 appear to be tightly received in Fig 1).
- c. Regarding claim 42, Holdregger teaches the doctor blade mounting system of claim 40 as discussed in the rejection of claim 40 above. Holdregger also teaches wherein said clamping means fixes said doctor blade by means of friction (blade 10 appears to be in frictional contact with 12, which is frictionally pressed against blade 10 by strip 3, Fig. 4).
- d. Regarding claim 43, Holdregger teaches the doctor blade mounting system of claim 40 as discussed in the rejection of claim 40 above. Holdregger also teaches wherein said clamping means supports at least one side of said doctor blade disposed within said slit (one side of blade 10 appears to be supported by 3 and 12, Fig. 4).
- e. Regarding claim 44, Holdregger teaches the doctor blade mounting system of claim 40 as discussed in the rejection of claim 40 above. Holdregger also teaches wherein said clamping means is resiliently disposed within said slit ("clamping tube which is made of a pressure-type elastic material," col. 3, ll. 36-37; "spring strip 12," col. 3, ll. 61-62; both the elastic and spring are resilient, and appear to be resiliently disposed, Fig. 1).

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f. Regarding claim 45, Holdregger teaches the doctor blade mounting system of claim 40 as discussed in the rejection of claim 40 above. Holdregger also teaches wherein said clamping means is removably disposed within said slit (both 3 and 12 appear to be removable, Fig. 1).

g. Regarding claim 46, Holdregger teaches the doctor blade mounting system of claim 40 as discussed in the rejection of claim 40 above. Holdregger also teaches wherein said clamping means comprises at least one elastomeric member ("clamping tube which is made of a pressure-type elastic material," col. 3, ll. 36-37).

h. Regarding claim 47, Holdregger teaches the doctor blade mounting system of claim 46 as discussed in the rejection of claim 46 above. Holdregger also teaches wherein at least a portion of said clamping means is in the shape of a wedge strip comprising a shape intended to fit and lock within a cross-sectional profile of said slit (strip 3 appears to be wedged in groove 4, Fig. 1; spring 12 appears to be wedged in groove 2, Fig. 1).

i. Regarding claim 48, Holdregger teaches the doctor blade mounting system of claim 46 as discussed in the rejection of claim 46 above. Holdregger also teaches wherein at least a portion of said clamping means supports an edge of said doctor blade disposed within said slit (blade 10 appears to be supported by 3 and 12 within slit 2, Fig. 4).

j. Regarding claim 51, Holdregger teaches a method for removably clamping a doctor blade (10, Fig. 4) in a clamping member comprising an elongated clamping member comprising solid material (1, Fig. 2), said elongated clamping member including a slit (2, Fig. 1) for introduction of said doctor blade, said method comprising inserting a portion of said doctor blade into said slit (a portion of blade 10 is in slit 2, Fig. 4), and inserting

resilient clamping means into said slit for resiliently supporting at least one side of said doctor blade within said slit (clamping means 3 and 12 are disposed in slit 2 and are supporting blade 10, Fig. 4).

k. Regarding claim 54, Holdregger method of claim 51 as discussed in the rejection of claim 51 above. Holdregger also teaches attaching said clamping means to a substantially U-shaped support (18, Fig. 4).

5. Claim 50 is rejected under 35 U.S.C. 102(b) as being anticipated by Bööse et al., US 5,671,673 A (hereafter Bööse).

Bööse teaches a chambered doctor blade mounting system (Fig. 1) for applying liquids to a rotatable cylinder (2, Fig. 1) in printing equipment comprising an elongated frame (13, Fig. 1) mounted adjacent to said rotatable cylinder, said elongated frame comprising a support and a pair of clamping portions (19, 20, Fig. 1), a pair of elongated doctor blades (9, 10, Fig. 1) mounted on said pair of clamping portions whereby said pair of elongated doctor blades are disposed parallel to said rotatable cylinder for operative wiping engagement with said rotatable cylinder (blades 9, 10, parallel to roller 2, Fig. 1), each of said pair of clamping portions including an elongated slit for receiving each of said pair of elongated doctor blades (blades held in a "slit" between two pieces of metal, Fig. 1), said pair of clamping portions and said support comprising separate parts (clamping portions appear to include two metal strips and several fasteners, Fig. 1), said support including a pair of end portions, and clamping means resiliently clamping said clamping portion to said pair of end portions of said support (it appears that the clamping portions are resiliently clamped, Fig. 1). The examiner is interpreting "resilient" to mean

"characterized or marked by resilience: as capable of withstanding shock without permanent deformation or rupture" (Merriam-Webster online dictionary at m-w.com). It appears the metallic clamping apparatus of Bööse is capable of withstanding shock without permanent deformation or rupture: for example, it is well-known that metals can be bent without causing permanent.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 29-39, 50, and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bööse in view of Holdregger.

a. Regarding claim 29:

Bööse teaches a doctor blade mounting system for applying liquids to a rotatable cylinder in printing equipment comprising an elongated frame (13, Fig. 1) mounted adjacent to said rotatable cylinder (2, Fig. 1), said elongated frame including a support and a clamping portion (19, Fig. 1) mounted with respect to said support, said clamping portion including an elongated slit (blades 9, 10, engaged in a "slit," Fig. 1), a doctor blade disposed within said elongated slit parallel to said rotatable cylinder for operative wiping engagement with said rotatable cylinder (9, 10, Fig. 1), and clamping means for fixing said doctor blade within said elongated slit, said clamping means being disposed with respect to said doctor blade to provide a damping action for said doctor blade (blades 9, 10, fixed in the slit, and appear to be mounted in such a way that their actions is damped, Fig. 1).

Bööse does not teach said clamping means being resiliently disposed with respect to said doctor blade.

Holdregger teaches a doctor blade mounting system for applying liquids ("inking blade in a printing press," col. 1, ll. 45-46) comprising an elongated frame (1, Fig. 1), said elongated frame including a support and a clamping portion mounted with respect to said support, said clamping portion including an elongated slit (2, Fig. 1), a doctor blade disposed within said elongated slit for operative wiping engagement (squeegee 10, Fig. 4; "inking blade in a printing press," col. 1, ll. 45-46), and clamping means for fixing said doctor blade within said elongated slit (3, 12, Fig. 1), said clamping means being disposed with respect to said doctor blade to provide a damping action for said doctor blade ("clamping tube which is made of a pressure-type elastic material," col. 3, ll. 36-37; "spring strip 12," col. 3, ll. 61-62; both the elastic and spring are resilient). Holdregger teaches that

this arrangement simplifies the mounting process for the inking blade, creates a uniform linear clamping force along the whole length of the blade, and obviates distortions in the mounting of the inking blade due to local differences in clamping forces (col. 1, ll. 44-55).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Bööse wherein said clamping means is resiliently disposed with respect to said doctor blade as taught by Holdregger, because Holdregger teaches this arrangement simplifies the mounting process for the inking blade, creates a uniform linear clamping force along the whole length of the blade, and obviates distortions in the mounting of the inking blade due to local differences in clamping forces.

b. Regarding claim 30, the combination of Bööse and Holdregger teaches the doctor blade mounting system of claim 29 as discussed in the rejection of claim 29 above. The combination of Bööse and Holdregger also teaches wherein said clamping means is tightly received within said slit (Holdregger: clamping means 3 and 12 appear to be tightly received in Fig 1).

c. Regarding claim 31, the combination of Bööse and Holdregger teaches the doctor blade mounting system of claim 29 as discussed in the rejection of claim 29 above. The combination of Bööse and Holdregger also teaches wherein said clamping means fixes said doctor blade by means of friction (Holdregger: blade 10 appears to be in frictional contact with 12, which is frictionally pressed against blade 10 by strip 3, Fig. 4).

d. Regarding claim 32, the combination of Bööse and Holdregger teaches the doctor blade mounting system of claim 29 as discussed in the rejection of claim 29 above. The combination of Bööse and Holdregger also teaches wherein said clamping means

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supports at least one side of said doctor blade disposed within said slit (Holdregger: one side of blade 10 appears to be supported by 3 and 12, Fig. 4).

e. Regarding claim 33, the combination of Bööse and Holdregger teaches the doctor blade mounting system of claim 29 as discussed in the rejection of claim 29 above. The combination of Bööse and Holdregger also teaches wherein said clamping means is resiliently disposed within said slit (Holdregger: "clamping tube which is made of a pressure-type elastic material," col. 3, ll. 36-37; "spring strip 12," col. 3, ll. 61-62; both the elastic and spring are resilient, and appear to be resiliently disposed, Fig. 1).

f. Regarding claim 34, the combination of Bööse and Holdregger teaches the doctor blade mounting system of claim 29 as discussed in the rejection of claim 29 above. The combination of Bööse and Holdregger also teaches wherein said clamping means is removably disposed within said slit (Holdregger: both 3 and 12 appear to be removable, Fig. 1).

g. Regarding claim 35, the combination of Bööse and Holdregger teaches the doctor blade mounting system of claim 29 as discussed in the rejection of claim 29 above. The combination of Bööse and Holdregger also teaches wherein said clamping means comprises at least one elastomeric member ("clamping tube which is made of a pressure-type elastic material," col. 3, ll. 36-37).

h. Regarding claim 36, the combination of Bööse and Holdregger teaches the doctor blade mounting system of claim 35 as discussed in the rejection of claim 35 above. The combination of Bööse and Holdregger also teaches wherein at least a portion of said clamping means is in the shape of a wedge strip comprising a shape intended to fit and

lock within a cross-sectional profile of said slit (Holdregger: strip 3 appears to be wedged in groove 4, Fig. 1; spring 12 appears to be wedged in groove 2, Fig. 1).

i. Regarding claim 37, the combination of Bööse and Holdregger teaches the doctor blade mounting system of claim 35 as discussed in the rejection of claim 35 above. The combination of Bööse and Holdregger also teaches wherein at least a portion of said clamping means supports an edge of said doctor blade disposed within said slit (Holdregger: blade 10 appears to be supported by 3 and 12 within slit 2, Fig. 4).

j. Regarding claim 38:

The combination of Bööse and Holdregger teaches the doctor blade mounting system of claim 35 as discussed in the rejection of claim 35 above. The combination of Bööse and Holdregger also teaches wherein said elastomeric member has a hardness (Holdregger: elastic strip 3 has an inherent Shore hardness, though Holdregger is silent as to the exact value of the hardness).

The combination of Bööse and Holdregger does not teach wherein said elastomeric member has a hardness of about 70 degrees Shore.

One having ordinary skill in the art would know that elastomeric materials (such as strip 3 in Holdregger) have a hardness measured on the Shore A scale, and that the hardness of a material will affect its behavior.

It has been held that mere routine experimentation to optimize a value is not sufficient to patentably distinguish an invention over the prior art. See MPEP §2144.05((II)(A)).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to additionally modify Bööse to select a material with a Shore A hardness of 70, because a person having ordinary skill in the art could easily perform routine experiments with materials of varying hardness to determine the optimum hardness that provides the most effective clamping of a doctor blade.

k. Regarding claim 39, the combination of Bööse and Holdregger teaches the doctor blade mounting system of claim 29 as discussed in the rejection of claim 29 above. The combination of Bööse and Holdregger also teaches wherein said support and said clamping portion comprise separate parts (support and clamping portions are separate in Bööse (Fig. 1) and Holdregger (Fig. 1)), and said support includes at least one end portion (Holdregger: support 1, Fig. 1, has an "end" in which the blade 10 is clamped, Fig. 4), and wherein said clamping means resiliently clamps said clamping portion to said end portion of said support.

l. Regarding claim 55:

Bööse teaches a method for removably attaching a doctor blade clamping portion to a support (13, Fig. 1), said doctor blade clamping portion (19, Fig. 1) including a first slit and a second slit (first slit in side 19, second in side 20, Fig. 1), said first slit intended to accommodate said doctor blade (9, 10, Fig. 1), said method comprising introducing the end portions of said frame into said second slit and resiliently supporting at least one side of said clamping portion.

Bööse does not teach inserting resilient clamping means into said second slit.

Holdregger teaches a doctor blade mounting system for applying liquids ("inking blade in a printing press," col. 1, ll. 45-46) comprising an elongated frame (1, Fig. 1), said elongated frame including a support and a clamping portion mounted with respect to said support, said clamping portion including an elongated slit (2, Fig. 1), a doctor blade disposed within said elongated slit for operative wiping engagement (squeegee 10, Fig. 4; "inking blade in a printing press," col. 1, ll. 45-46), and clamping means for fixing said doctor blade within said elongated slit (3, 12, Fig. 1), said clamping means being disposed with respect to said doctor blade to provide a damping action for said doctor blade ("clamping tube which is made of a pressure-type elastic material," col. 3, ll. 36-37; "spring strip 12," col. 3, ll. 61-62; both the elastic and spring are resilient). Holdregger teaches that this arrangement simplifies the mounting process for the inking blade, creates a uniform linear clamping force along the whole length of the blade, and obviates distortions in the mounting of the inking blade due to local differences in clamping forces (col. 1, ll. 44-55).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Bööse to insert resilient clamping means into said second slit for resiliently supporting at least one side of said clamping portion as taught by Holdregger, because Holdregger teaches this arrangement simplifies the mounting process for the inking blade, creates a uniform linear clamping force along the whole length of the blade, and obviates distortions in the mounting of the inking blade due to local differences in clamping forces.

9. Claims 49, 52 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holdregger.

a. Regarding claim 49:

Holdregger teaches the doctor blade mounting system of claim 46 as discussed in the rejection of claim 46 above. Holdregger is silent as to the hardness of elastic strip 3 (Fig. 1).

Holdregger does not teach wherein said elastomeric member has a hardness of about 70 degrees Shore.

One having ordinary skill in the art would know that elastomeric materials (such as strip 3 in Holdregger) have a hardness measured on the Shore A scale, and that the hardness of a material will affect its behavior.

It has been held that mere routine experimentation to optimize a value is not sufficient to patentably distinguish an invention over the prior art. See MPEP §2144.05((II)(A)).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Holdregger to select a material with a Shore A hardness of 70, because a person having ordinary skill in the art could easily perform routine experiments with materials of varying hardness to determine the optimum hardness that provides the most effective clamping of a doctor blade.

b. Regarding claim 52:

Holdregger teaches the method of claim 51 as discussed in the rejection of claim 51 above. Holdregger is silent as to the exact method of installing strip 3.

Holdregger does not teach lubricating said clamping means prior to inserting said clamping means into said slit.

One having ordinary skill in the art would be familiar with the concept of friction, including the fact that lubrication lowers the coefficient of friction between two surfaces.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Holdregger to lubricate said clamping means prior to inserting said clamping means into said slit, because a person having ordinary skill in the art would recognize that lubricating strip 3 may reduce the friction between strip 3 and holder 1, thereby making it easier to install strip 3 into the recess 4 in strip 2.

c. Regarding claim 53, Holdregger teaches the method of claim 52 as discussed in the rejection of claim 52 above. Holdregger also teaches wherein said clamping means comprising an elastomeric member, and including manually inserting said clamping means into said slit (strip 3 is manually inserted into recess 4, Fig. 1).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Davis, US 6,237,487 B1 teaches a mounting for a doctor blade (25', Fig. 4), including the use of elastomeric clamping strips (27, Fig. 4).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leo T. Hinze whose telephone number is 571.272.2864.

The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571.272.2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Leo T. Hinze
Patent Examiner
AU 2854
28 December 2007



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